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II — *Indications of a Consonant-Shift in Siamese since the Introduction of Alphabetical Writing*

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I

WHILE yet a lad I became interested in noting the likeness between certain words in the Siamese, which was my vernacular, and their Indian analogues as I met them in current publications and in history. Likeness unmistakable there was; but perplexing difference as well, the reason and method of which have only of late begun to dawn upon me in the attempt to work out systematically the etymology of Pali and Sanskrit loan-words in the Siamese vocabulary. The matter is one which, so far as I know, has never before been investigated. This present study is no more than a reconnaissance. Data for the direct study of the history of the language are still almost entirely lacking. Meantime the indirect evidence of these loan-words is valuable so far as it goes, and is not without interest as an example of the operation in an alien stock indeed, but upon the same linguistic material, of the forces which brought about the great Indo-European sound-shift.

II

There is evidence to show that the group of Thai races inhabiting the peninsula of Farther India were from very early times in some contact with the culture and learning of India proper. But the impulse which quickened them to a cultural life of their own seems only to have come in the wake of the great Buddhist missionary effort of the sixth and seventh centuries of our era. One most important result of that quickening was the reduction of their several languages to writing. The suggestion to this step would come from the example of the Pali scriptures read and studied in the monasteries of the new faith. The obvious motive would be

the need of recording the vernacular gloss or interpretation of the sacred text. The means stood ready to hand in those same Devanāgarī letters in which the text was written. The stage of writing was not reached by all these races at the same time. The Burmese were probably first, favored no doubt by their proximity to India; while the Siamese, the youngest and most remote member of the group, seems to have lagged considerably behind its western neighbor. No dates can as yet be affirmed with confidence. Perhaps we shall not be far astray if we assume the tenth century of our era as the time when Siamese writing came into use. The Devanāgarī characters suffered great modification of form at the hands of these various peoples, so that the resulting types — the Burmese, the Cambodian, and the Siamese letters — show little obvious resemblance to each other or to their common original. Their Indian origin, however, is well attested, and they have all kept intact not merely the whole list of Indian letters, but even their order and grouping as well.¹ All the Indian letters were needed in order to write not merely the Pali texts, but also the numerous Pali and Sanskrit words which the new religion and the new culture had brought into common use. Pali words, moreover, being of such importance in doctrine and in ritual, were learned, we may be sure, with all care; and retained not only their Indian spelling, but at first the Indian pronunciation as well,

¹ The Siamese alphabet as it now stands has added nine letters to the Indian list, making forty-four in all. One of these additions, now standing at the end of the alphabet, represents the Indian vowel-sign for *a*. This character the Siamese writes consistently as “supporter” with all initial vowels, as the Indian scribes already wrote it with some of them. And, further, its place in a consonantal alphabet seems justified on the ground that it represents a consonant sound, namely the “glottal catch” regularly heard in Siamese before a vowel which we should call initial. Another of these added letters is an *f*, unknown to Pali and Sanskrit. The others are slightly varied forms of letters already standing in the alphabet, the alteration in some cases serving to mark variation in “voice”; in some cases to determine the pitch or “tone” of the syllable; while in others no sufficient reason for the variant appears. All these letters — with the exception of the one first named — are interpolated in their proper phonetic classes, the derivative letter always following its original. If all these were stricken out, the alphabet would exactly parallel the Indian.

so far as the dialect of the teachers, and so far as Siamese articulation would permit. The spelling of these early loan-words still remains with surprising strictness letter for letter what it was — and is — in the Indian texts. But their present pronunciation in Siamese shows a marked and constant divergence from the traditional pronunciation of them in India; especially in the case of the stopped consonants, which alone I am now considering. This divergence seems to be the only record, or even intimation, of any consonant-shift in Siamese within the period named. It cannot be assumed, however, that all of this divergence is really due to consonant-shift. Other causes may have been operative as well.¹ It is important, therefore, to examine carefully both the record itself and the bases of any interpretations that may be suggested.

III

First to come in question is the constancy, during this long period, of the standard of comparison — the Indian pronunciation of Pali and Sanskrit — by which alone it is possible even approximately to measure the divergence. Absolute invariability is, of course, quite out of the question; — it could never be proved, even were it to exist. Let us ask rather whether that Indian tradition does, or does not, contain such factors of stability and such data for detection of change as to make it comparatively constant, and so fit it to serve in a case like this. This question, I think, we may answer in the affirmative. Both Pali and Sanskrit at the beginning of our period were dead languages, and therefore immune from changes incident to life and growth. Both were objects of an immense scholarly effort as well as a religious care expressly directed to insure the accuracy of their transmission. Moreover, the values of all the consonants in question were long ago studied and described

¹ It is, for example, entirely possible that the pronunciation of Indian words learned by the Siamese from their missionary teachers may have been dialectal from the start, and not the traditional pronunciation either of Pali or of Sanskrit. This possibility is touched upon later, under VII, below.

by a great school of phonetists, and so accurately that their identification in all essential features seems still quite possible. Indeed, when one recalls the mathematical exactness with which each one of these consonants stands visibly related to its neighbors on every side on that marvellous checkerboard of the Indian alphabet — with its ranks of identical articulation and its files of identical aspiration and “voice,” — the difficulty is rather to see how any one of them could move even a little way without being caught and sent back, or without throwing the whole delicately balanced scheme into confusion.

IV

If the standard be allowed as sufficient for our purpose, the question next arises whether all the divergence it reveals is really sound-shift, — that is, variation brought about by forces working a gradual displacement in process of time; — or whether some of it at least may not have been inherent in the original transfer and adjustment — change due to the presence in the one language of phonetic elements unknown or found impossible of utterance in the other. If, for example, the Indian alphabet contained certain letters representing sounds foreign to Siamese speech, and if these letters must be retained in the Siamese alphabet for the proper spelling of Indian words, we should expect to find these letters used for the spelling of Indian words only. Even though the accommodated values given them in Siamese pronunciation should absolutely duplicate sounds common in Siamese words, those letters would not be used to spell Siamese words, but would remain to the end as alien as were *y* and *z* in Roman writing, and for much the same reason. In such a case we should have a substitution outright, and no proper sound-shift. Now precisely such conditions appear in the case of one complete class of letters representing identical articulation — namely the linguals —, and in one complete order representing identical aspiration and “voice” — namely the sonant-aspirates. When one reflects upon the rarity of these two sets of sounds in the world of

human speech, on the enormous difficulty our professed students of language find in reaching any tolerable approximation to them, and on their entire absence, so far as I learn, not only from the whole group of Thai languages, but from the related southern-Chinese dialects as well — one is almost forced to the conclusion that the Indian sounds which those letters represented were then unknown in Siamese speech.¹ And lastly, the almost entire absence of these letters in the spelling of native words strongly confirms the impression that the divergence here is original, coincident with the introduction of writing, and not the effect of time and gradual change.

V

The elimination of the linguals reduces the classes of Indian sounds and letters with which we have to deal to four: — gutturals, palatals, dentals, and labials. The elimination of the sonant-aspirates reduces the orders to three: — simple surds, surd-aspirates, and simple sonants. Perhaps we are not yet at the end of our elimination. But with the field thus narrowed, it may be well to pause here and consider the present values in Siamese of the remaining letters. These letters are twelve, standing in the well-known geometric order and classification of the Indian scheme; but only half of them have now their Indian phonetic values. A few examples will make the fact and the amount of divergence clear. The Sanskrit (or sometimes the Pali) original stands first, then the present Siamese pronunciation and spelling; the consonants in every case exactly rendered according to the Indian scheme, and silent letters enclosed in square brackets.

¹ Sonant-aspirates occurring in Indian loan-words are now pronounced exactly as are the corresponding surd-aspirates. Similarly the linguals are completely identified in utterance with the dentals; but the one articulation now given in common to both these is neither exactly that of the Indian linguals, nor that of the Indian dentals, as I have observed them, but one between the two, nearly or quite like our own *linguo-dental* articulation. The phonetic nomenclature and the scheme of transliteration used in this paper, I need scarcely say, are Professor Whitney's.

ORDER I. *Simple Surds*

1. k = k

karma = ka[r]m *deed*
kalpa = ka[l]p *aeon*
kuṭī = kuṭi *hut*
eka = ēk *one*

2. c = c

cakra = cak[r] *wheel*
candra = can[thr] *moon*
m. catvāras = catvā *four*
Pali cakkhu = cakhu *eye*

3. t > d generally, but sometimes t = t²¹

tāra > dāra *star*
tāpasa > dābos *hermit*
tejas > dēchā *glory*
Pali pitā > bidā *father*

trayas, tri- = t²ray, t²rī *three*
m. catvāras = cat²vā *four*
Pali sati = sat²i *thought*
sampatti = sombat²[i] *wealth*

4. p > b generally, but sometimes p = p²¹

purī > burī *city*
putra > but²[r] *child*
pāda > bāth *foot*
paṇḍita > baṇḥit *scholar*

pra- (*prefix*) = p²ra *forth*
Pāli (*the language*) = P²ālī
or in earlier use Bālī
pāpa = bāp² *sin*

ORDER II. *Surd-Aspirates*

These are unchanged throughout; examples have therefore been thought unnecessary.

ORDER III. *Simple Sonants*

1. g > kh

go > khō *cow*
guru > khrū *teacher*
Gautama > Khōdom *Buddha*
saṁgrāma > sonkhrām *war*

2. j > ch

jaya > chay *victory*
jarā > charā *old age, aged*
rāja > rācha *royal*
Pali vijjā > vichā *wisdom*

3. d > th

deva > thēva *celestial being*
Pali dve, du > thō *two*
dāna > thān *gift*
Pali dukkha > thuk[kh] *distress*

4. b > ph

Buddha > Puth[th] *Buddha*
Brāhma > Phrāhm *Brahmin*
bandhu > phan[thu] *kindred*
bala > phol *forces*

Having followed the cases through in detail, let us now group the letters according to the Indian scheme, and under each Indian consonant let us put in italics the present pho-

¹ t² and p² represent two letters, manifestly variant forms of original *t* and *p*, which are uniformly surd in pronunciation, while their originals are now uniformly sonant. See below under VII.

netic value of that letter in Siamese. The result is as follows:

	<i>Simple Surds</i>	<i>Surd-Aspirates</i>	<i>Simple Sonants</i>	
Indian	k	kh	g	Gutturals
Present Siamese	<i>k</i>	<i>kh</i>	<i>kh</i>	
Indian	c	ch	j	Palatals
Present Siamese	<i>c</i>	<i>ch</i>	<i>ch</i>	
Indian	t	th	d	Dentals
Present Siamese	<i>d</i> or <i>t</i>	<i>th</i>	<i>th</i>	
Indian	p	ph	b	Labials
Present Siamese	<i>b</i> or <i>p</i>	<i>ph</i>	<i>ph</i>	

Through this presentation the following points are made clear: *a*) One of the orders—the surd-aspirate—has undergone no change. *b*) One order—the simple sonant—has throughout lost “voice” and taken on aspiration, becoming thus identified in utterance, though not in spelling, with the surd-aspirates. *c*) One order—the simple surd—exhibits diverse results. Two of its members, *k* and *c*, are unchanged. The other two, *t* and *p*, are generally sounded as *d* and *b*, but exceptionally remain *t* and *p*. These groups we shall now take up in the order named.

VI

The group first named above offers no material for our use, and may therefore be dismissed with only the passing remark, that *sounds* of this order—surd-aspirates—are far more frequent in these loan-words than in their Indian originals. Into the group by one means or another have been swept, as we have seen, first the sonant-aspirates, and now the simple sonants, so that the one order now does duty for no less than three orders of sounds in Indian pronunciation.

The right interpretation of what has taken place in the next group rests, I imagine, on a question as to historical fact. Were, or were not, these sonants elements of Siamese speech at the time it was reduced to writing?¹ If they were, it seems

¹ There is, of course, the further question: How were the Indian sonants pronounced by the missionary teachers of the Siamese? See further under VII, below.

fair to infer that the Indian sonant letters would have been chosen to represent them, and the divergence we now discover is a genuine sound-shift. If they were not, these letters must have received some conventional utterance, and that may well have been the very utterance they now have. The whole phenomenon would then be once more the substitution at the start of a familiar sound for an unfamiliar one. Unfortunately no means for determining this historical question as yet appears, nor does one discern in what quarter to look for it. The discovery of Siamese words in Indian documents of that period might determine it; but such discovery is scarcely to be hoped for. In default of anything better, we may briefly review the probabilities on either side. On the one hand, it is a somewhat rare thing for a language to have absolutely no sonant stops. The group of sounds is an important one generally, and it is represented now in Siamese speech and, I think, in all the Thai languages of the present day.¹ The constant use of the Indian sonant letters to spell native Siamese words is even a stronger point on this side. For if sonants were alien to the Siamese language, we should look for the same rigid exclusion of these letters from native words which we found in the case of the linguals and of the sonant-aspirates.²

Over against this presumption is the difficulty³ that the *un*-voicing of these letters and the voicing of *t* and *p*, discussed in the next section, cannot *both* be true consonant shifts. For *a*) if the last change took place before the other, the resultant *d* and *b* would also have been carried over into the aspirate group along with the preëxisting sonants. *b*) If the un-voicing came first, we cannot well distinguish it from original substitution. *c*) If we suppose both to have gone on together, there would be "two exactly opposite tendencies prevailing at once," — a state of things difficult to conceive. This criticism,

¹ Yet it is entirely wanting in the nearly related Cantonese dialect of China.

² See under IV, above.

³ Suggested by Professor George Hempl of Stanford, to whose kindness I am indebted for a careful reading of the first draft of this paper, and for many other valuable suggestions which I gratefully acknowledge.

it will be observed, does not apply to either case taken by itself, but only to the inclusion of both.

That no fact having any possible bearing on the question may be omitted, I should add, perhaps, that the two existing sets of surd-aspirates—the ones which seem to be original, and the ones that stand in the place of sonants—are not *in every respect* identical in present Siamese. They differ in “tone,” that is in their influence upon the pitch of the syllable in which they lead. If the unvoicing of the sonants was accomplished at the very start, it is just possible that the contrivers of the scheme of writing, in their embarrassment over so many sets of letters identical in articulation, aspiration, and lack of “voice,” may have thought best to put one of them to this tonal use, and so brought them into service in Siamese words. It seems unlikely, however, that having accomplished all this tonal distinction with much simpler devices in the case of one section of the alphabet, they should have invented this most cumbersome apparatus for the other section. Indeed, it is just as possible that the present tonal distinction is the vestige and token of an earlier distinction in “voice” which time has effaced. This view would account quite as well as the other, not merely for the appearance of these letters in native words, but for the origin of all that cumbersome machinery of “tone” of which I have just spoken. Upon the whole the presumption seems on the side of consonant-shift. But the question is plainly not one to be settled by theorizing, but rather by discovery of further facts.

VII

We come now to the last group under consideration, the simple surds. Two of these—*k* and *c*—persist without change. Two—*t* and *p*—generally appear as *d* and *b*, but in special cases remain unchanged. The letter which represents Indian *t* at some point in its history was differentiated, by means of a slight variation in pen-stroke, into two letters, the one uniformly¹ pronounced *d* and the other *t*. To dis-

¹ The only exception is in the case where the letter has become final in Siamese. But in that position all stops lose “voice,” precisely as they do in modern German.

tinguish these from Indian *d* (which is in another order) and from Indian *t*, I shall call these *d*² and *t*². The lineal successor of Indian *t* seems to be *d*². It is certainly the one copied from the Indian letter, while *t*² is plainly a deliberately planned variant from *d*². Moreover, *d*² stands in the old place of Indian *t* at the head of the lingual class, while *t*² immediately follows it in the regular place of an interpolated letter, as stated above.¹ And *d*² is regularly written for Indian *t*, save in the few exceptional positions, to be noticed presently, where *t*² takes its place. Precisely the same thing in every particular has happened to Indian *p*:—it has been split into *b*² and *p*², and of these the sonant, *b*², is the regular representative of Indian *p*, with still fewer exceptions in which *p*² takes its place. These two surds, therefore, are now regularly sonants. The exceptional positions in which *t* becomes *t*² and remains surd are in the combinations *tr*, *tv*, *tt* (simplified to *t*); *ty* when not reduced to *c*, as it often is in Pali; and sometimes in final *ti*, *tu*. Similarly *p* becomes *p*² and remains surd in the combination *pr*—see compounds of *pra-passim*,—and in a few other cases explainable on the ground of a recent revival of Pali scholarship in Siam, and a resulting respelling of certain of these words in order to restore their Indian pronunciation.² These exceptional cases are perhaps sufficiently illustrated in the examples given under v, Order 1, above. The whole treatment of Indian *t* and *p* looks very like a genuine consonant-shift, and even the exceptions tend to confirm that impression. I hear that something akin to this took place in some of the south-Indian tongues related to the Sanskrit. It may turn out that what we are here considering is a consonant-shift indeed, but one imported ready-made from India, in a provincial pronunciation of Pali on the part of the Buddhist missionaries who

¹ See p. 20, n.

² An interesting example is the word *Pāli* itself, so spelled and pronounced now, while fifty years ago it was regularly spelled and pronounced *Bālī*—much as though Greek studies should lead us to substitute *piskop* for *bishop*, and much as we have corrected Chaucer's *parfait* to *perfect*. Another example is the well-known *tripitaka* now spelled and pronounced with partial restoration *trayapidok*. This movement has restored some *t*'s as well.

came to Siam. The question, I imagine, could be readily determined by competent students of Indian dialects.¹ Should this suggestion receive confirmation, it might not be impossible to escape the horns of Professor Hempl's formidable trilemma.

Thus have I endeavored to present in brief the ascertained facts regarding the divergence which exists between early Indian loan-words in Siamese and their Indian originals. I cannot but think that somewhere here we have a genuine consonant-shift. Just where in the field of change it is, I cannot yet be sure. I am much more anxious to bring these facts to the attention of scholars who may be able to interpret them conclusively, than I am to champion any premature theories of my own.

¹ I regret that the inevitable limit of time prevents me from following up this question at once, and reporting the results in this paper. Very suggestive, however, is Burnouf's remark: "Çâkyamuni, appelé le *çramaṇa gâotama* [mots défigurés en *Samanakhôdom* dans le pays du sud]."—*Dictionnaire Sanskrit-Français*, s.v. *gâotama*. The Siamese form is almost identical, *Somaṇakhôdom*; yet alongside of this we have the simple form *Khôtama*.